## Compressed air purification systemTypical configuration diagram

Compressed air is one of the most commonly used power sources in industry. Its biggest features are convenience, speed, safety and cheapness. However, untreated compressed air contains a large amount of solid impurities, water and oil, which will not only corrode the air pipeline, increase pressure loss, damage precision instruments, and cause equipment failure, but also affect product quality, reduce production efficiency, endanger personnel health, and increase production costs, which means wasting your precious time and money.

Our company uses advanced technology and processes to manufacture high-performance, full-series compressed air drying and purification equipment with high-quality components, which can provide you with oil-free, water-free, dust-free, and odor-free ultra-clean compressed air of various flow rates and pressures.

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Afternool

Piston air compresso

Screw or centrifugal air compressor



Please directly contact with us for further more details!

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System No.	Moisture	Particles	Oil	Odor	Typical applications
No.1 There is a small amount of dust, water and oil	A small amount of liquid water	<3µm	5mg/m <sup>3</sup>	Oil smell	General pneumatic tools and fixtures, industrial hand tools, foundry machinery, mining rock drills and other heavy pneumatic machinery, parts cleaning, purging, cooling
No.2 There are traces of dust, water and oil	A trace amount of liquid water	<1µm	0.5mg/m <sup>3</sup>	Slightly oily smell	Precision and large pneumatic tools, general pneumatic machinery, instruments, spray painting, coating, drying of measuring equipment
No.3 Virtually all dust, water and oil are removed	Relative humidity 100%	< 0.01µm	0.001mg/ m <sup>3</sup>	No oil smell	Precision pneumatic tools, machinery, pneumatic instruments, equipment, painting, coating, pneumatic motors, pneumatic conveying
No.4 Free of dust, moisture, oil and odor	Relative humidity 100%	< 0.01µm	0.001mg/ m <sup>3</sup>	No odor	Medical and breathing gases, bottle blowing, film manufacturing, valuable instruments and equipment, instruments, cosmetics, and so on
No.5 Contains trace dust, moisture and oil, relatively dry	Pressure dew point 2~10°C	<1µm	0.5mg/m <sup>3</sup>	Slightly oily smell	Precision pneumatic tools, fixtures and air guns, woodworking equipment, general pneumatic, components, control valves,
No.6 Almost all dust, water and oil are removed, making it drier	Pressure dew point 2~10°C	< 0.01µm	0.001mg/ m <sup>3</sup>	No oil smell	Plastic injection, motor, electronic component processing, precision pneumatic instruments, control valves, marine instruments,
No.7 Free of dust, moisture and oil, odorless and relatively dry	Pressure dew point 2~10°C	< 0.01µm	0.001mg/ m <sup>3</sup>	No odor	Bottle injection, pharmaceutical and food processing, medical and dental equipment, precision pneumatic instruments and equipment,
No.8 Free of dust, moisture and oil, odorless, deep drying	Pressure dew point below -20 °C, lowest can reach -70°C	< 0.01µm	0.001mg/ m <sup>3</sup>	No odor	High voltage electrical insulation, powder storage, transportation and drying, advanced spraying, pharmaceutical and food processing, beer brewing, chemical fiber, film and film manufacturing,

## Main sources of impurities in compressed air

- The air inhaled by the compressor often contains dust particles, water vapor, microorganisms and other harmful gases (see the atmospheric pollution particle size distribution diagram);
- For piston oil-lubricated compressors, colloidal precipitates formed by oil and metal powder and carbon deposits generated by oil at high temperatures;
- Welding slag in the pipeline, fragments of sealing gaskets and rust generated by oxidation of water vapor in the compressed air.



## Air pollution particle size distribution chart

 Carbon black; 2) Lung-damaging smoke; 3)
Fly ash; 4) Raindrops; 5) Ammonium chloride smoke; 6) Pulverized coal; 7) Coal mining dust;
8) Cement dust; 9) Metallurgical smoke; 10)
Coal smoke; 11) Fog; 12) Smoke; 13) Particle dust; 14) Smog; 15) Tobacco smoke; 16) Coal dust; 17) Atmospheric dust; 18) Oil vapor suspension; 19) Pollen; 20) Viruses; 21)
Printing pigments; 22) Bacteria; 23) Resin smoke; 24) Visible to the naked eye.